Title 33 ENVIRONMENTAL QUALITY Part VII. Solid Waste

Chapter 11. Type II Surface Impoundments

§1101. Part I: Permit Application Form

The applicant shall complete a standard permit application Part I Form (Appendix B).

The following subsections refer to the items on the form requiring that information:

A. name of applicant (prospective permit holder) applying for a standard permit;

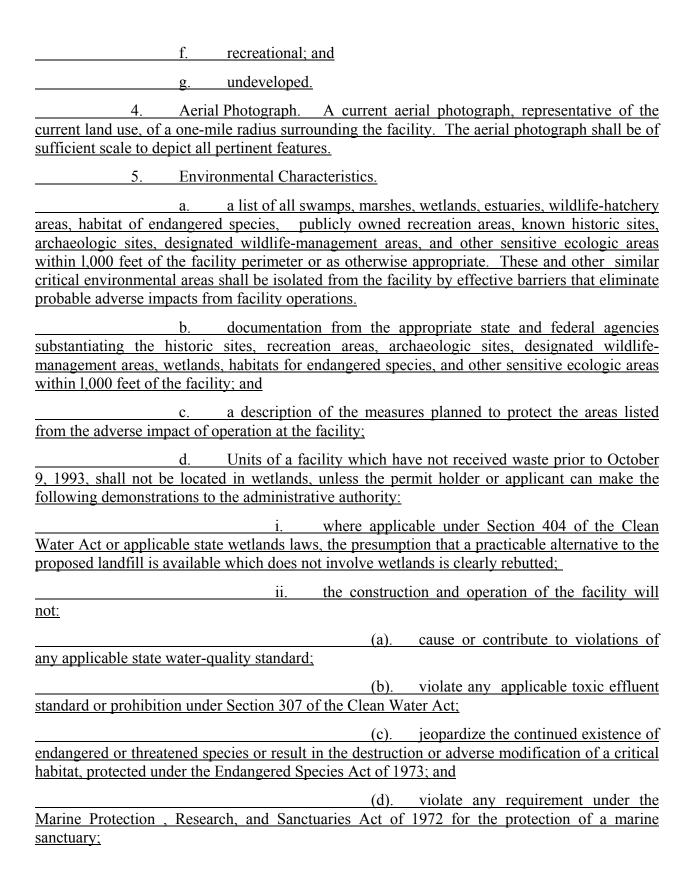
B. facility name;

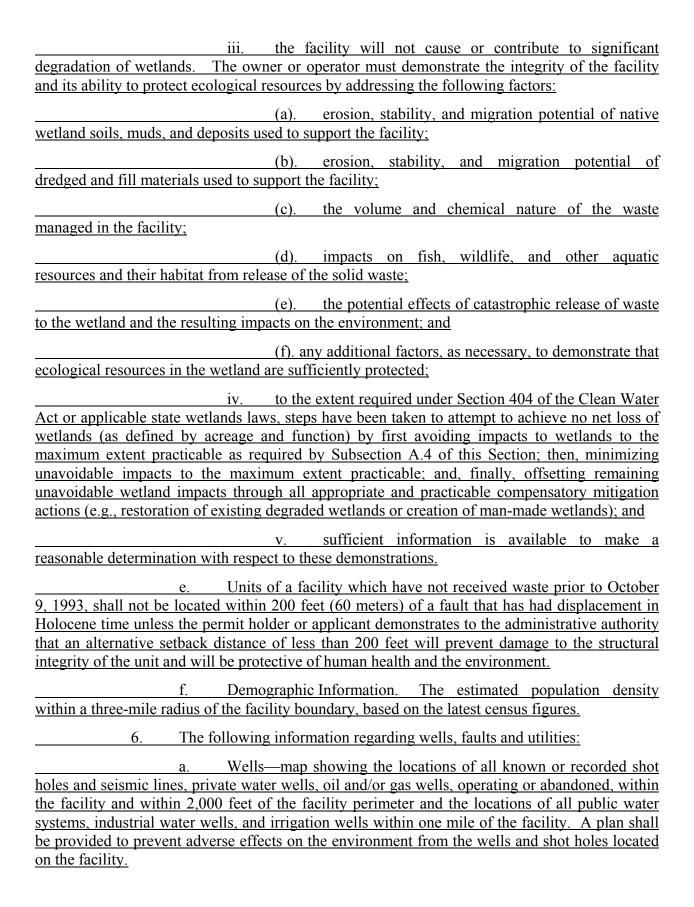
C. description of the location of the facility (identify by street and number or by intersection of roads, or by mileage and direction from an intersection);

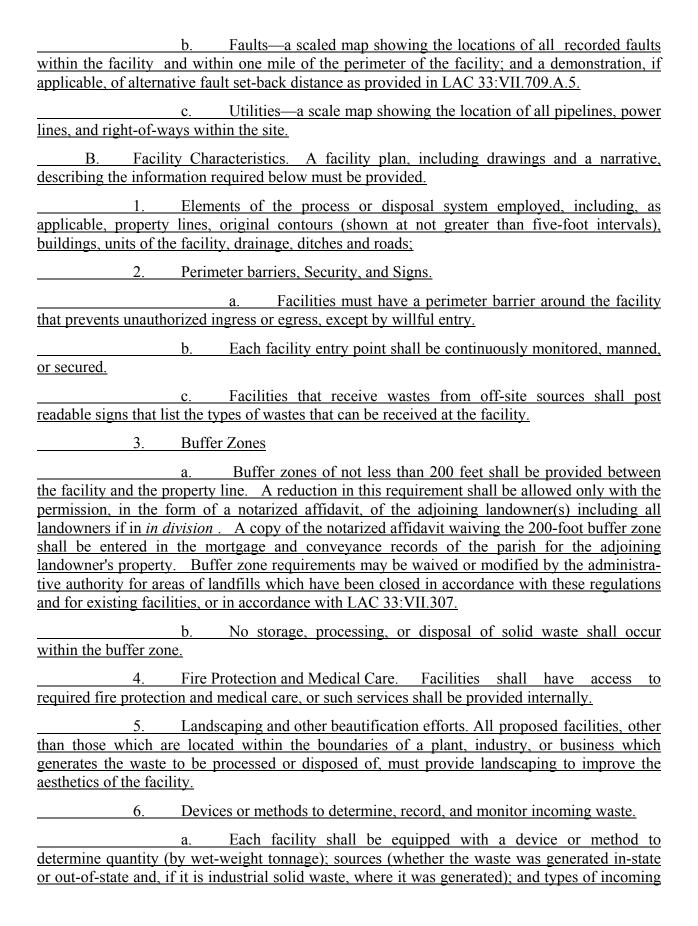
D. geographic location (section, township, range, and parish where the facility is located, and the coordinates [as defined by the longitude and latitude to the second] of the centerpoint of the facility);

- E. mailing address of the applicant;
- F. contact person for the applicant (position or title of the contact person is acceptable);
 - G. telephone number of the contact person;
 - H. type and purpose of operation (check each applicable box);
- I. status of the facility (if leased, state the number of years of the lease and provide a copy of the lease agreement);
 - J. operational status of the facility;
- K. total site acreage and the amount of acreage that will be used for processing and/or disposal;
- L. list of all environmental permits that relate directly to the facility represented in this application;
- M. a letter attached from the Louisiana Resource Recovery and Development Authority (LRRDA) stating that the operation conforms with the applicable statewide plan. (Note: In accordance with R.S. 30:2307.B, this regulation does not apply to solid waste disposal activity occurring entirely within the boundaries of a plant, industry, or business which generates such solid waste);
- N. zoning of the facility (if the facility is zoned, note the zone classification and zoning authority, and include a zoning affidavit or other documentation stating that the proposed use does not violate existing land-use requirements);
- O. types, maximum quantities (wet tons/week), and sources (percentage of the onsite or off-site-generated waste to be received) of waste to be processed or disposed of by the facility:
 - P. indicate the specific geographic area(s) to be serviced by the solid waste facility;
- Q. attach proof of publication of the notice regarding the submittal of the permit application as required in LAC 33:VII.513.A;

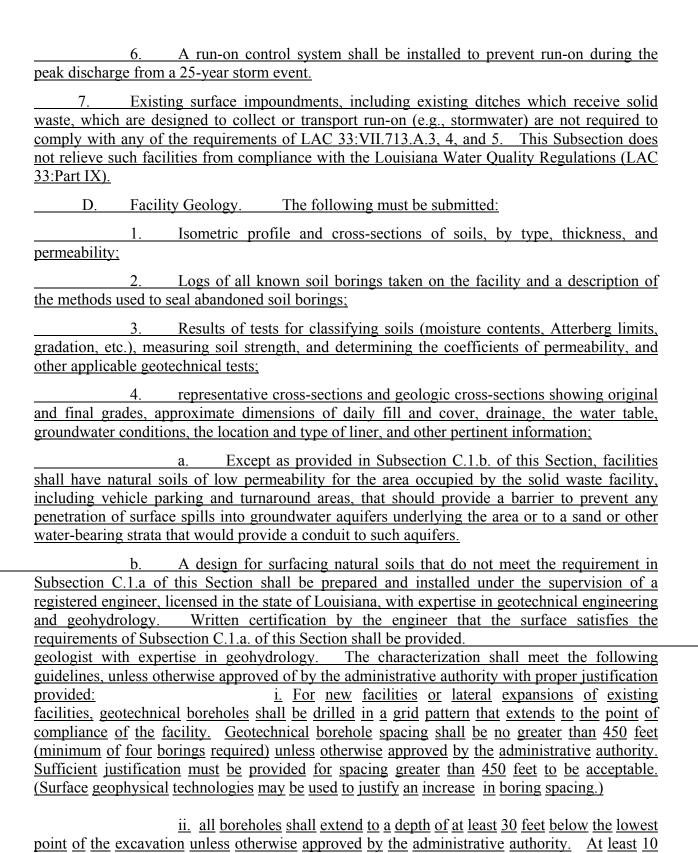
R. provide the signature, typed name, and title of the individual authorized to sign the application. Proof of the legal authority of the signatory to sign for the applicant must be	
provided; and	
S. any additional information required by the administrative authority.	
	HISTORICAL
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The following information is required in the permit application for Type II surface	
impoundments. All responses and exhibits must be identified in the following sequence to	
facilitate the evaluation. If a section does not apply, the applicant must state that it does not	
apply and explain why.	
A. Location Characteristics.	
1. Area Master Plans. A location map showing the facility, road network, major drainage systems, drainage-flow patterns, location of closest population center(s), location of the public-use airport(s) used by turbojet aircraft or piston-type aircraft, proof of notification of affected airport and Federal Aviation Administration, location of the l00-year flood plain, and other pertinent information. The scale of the maps and drawings must be legible, and engineering drawings are required.	
a. Facilities that dispose of putrescible solid waste shall not be	
located within 10,000 feet of any public-use airport runway end used by turbojet aircraft or	
within 5,000 feet of any public-use airport runway end used by only piston-type aircraft.	
2. A letter from the appropriate agency or agencies regarding those facilities	
receiving waste generated off-site, stating that the facility will not have a significant adverse	
impact on the traffic flow of area roadways and that the construction, maintenance, or proposed	
upgrading of such roads is adequate to withstand the weight of the vehicles.	
a. Access to facilities by land or water transportation shall be by all-	
weather roads or waterways that can meet the demands of the facility and are designed to avoid,	
to the extent practicable, congestion, sharp turns, obstructions, or other hazards conducive to	
accidents.	
b. The surface roadways shall be adequate to withstand the weight of	
transportation vehicles.	
transportation venicles.	
3. Existing Land Use. Disposal facilities may be subject to a	
comprehensive land-use or zoning plan established by local regulations or ordinances. A	
description of the total existing land use within three miles of the facility (by approximate	
percentage) including, but not limited to:	
a. residential;	
b. health-care facilities and schools;	
c. agricultural;	
d. industrial and manufacturing;	
e other commercial:	







waste. The facility shall also be equipped with a device or method to control entry of the waste
and prevent entry of unrecorded or unauthorized deliverables (i.e., hazardous waste, PCB waste,
and unauthorized or unpermitted solid waste).
b. Each facility shall be equipped with a central control and
recordkeeping system for tabulating the information required in Subsection B.5.a. of this
Section.
7. Permitted discharge points (existing and proposed).
7. Fermitted discharge points (existing and proposed).
8. Other features, as appropriate.
C. Facility Surface Hydrology.
1. Facilities located in a the 100-year flood plain must be filled to bring site
elevation above flood levels or perimeter levees or other measures must be provided to maintain
adequate protection against the 100-year flood elevation.
2. Facilities located in or within 1,000 feet of an aquifer recharge zone shall
be designed to protect the areas from adverse impacts of operations at the facility.
a. The location of aquifer recharge areas in the site or within 1,000
feet of the site perimeter.
h A description of the management planned to protect these areas from
b. A description of the measures planned to protect those areas from the adverse impact of operations at the facility; and
3. Surface-runoff-diversion levees, canals, or devices shall be installed to
prevent draninage from the units of the facility which havae not received final cover to adjoining
areas during a 24-hour/25-year storm event and to prevent surface drainage through the
operating areas of the facility. Adequate freeboard shall be provided to prevent over-topping by
wave action.
4. If the facility is located in a flood plain, a plan must be submitted to
ensure that the facility does not restrict the flow of the 100-year base flood or significantly
reduce the temporary water-storage capacity of the floodplain, and documentation indicating that
the design of the facility is such that the flooding does not affect the integrity of the facility or
result in the washout of solid waste so as to pose a threat to human health and the environment.
5. Runoff from operating areas which contain solid waste shall be considered
contaminated and shall not be allowed to mix with noncontaminated surface runoff.
a. Provide a description of the facility runoff/run-on collection
system.
b. Discharges from operating units of all facilities must be controlled
and must conform to applicable state and federal laws including the federal Clean Water Act and
Louisiana Water Pollution Control Law.
c. Applications for applicable state and federal discharge permits
must be filed before a standard permit may be issued.



percent of the borings (minimum of three borings) shall extend to 100 feet below grade level

unless otherwise approved by the administrative authority.

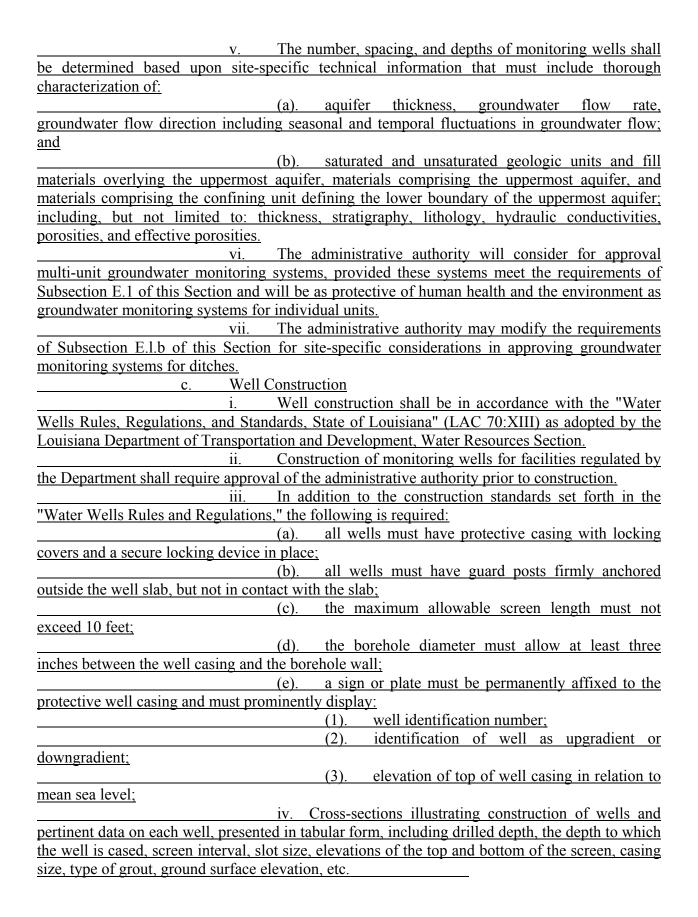
- iii. all borings shall be continuously sampled to at least 30 feet below the lowest point of excavation. After 30 feet, samples shall be collected at a maximum of five foot intervals. The use of remote sensing technologies may be used in lieu of coring devices with prior approval from the Administrative Authority. However, unless otherwise approved by the administrative authority, the use of remote sensing technologies will typically require that site specific demonstrations be made that show that the technique will provide adequate logging of the subsurface strata. (Remote sensing devices include cone penetrometer, borehole geophysical technologies, or other related technologies.
- iv. borings, geotechnical field tests, and laboratory tests shall be conducted according to the standards of the American Society for Testing and Materials (ASTM) or the Environmental Protection Agency (EPA), or other applicable standards approved by the administrative authority.
- v. Geotechnical boreholes shall not be placed through areas of previous disposal in an existing facility unless otherwise approved by the administrative authority.
- 5. geologic cross-section from available published information depicting the stratigraphy to a depth of at least 200 feet below the ground surface;
- 6. For faults mapped as existing through the facility, verification of their presence by geophysical mapping or stratigraphic correlation of boring logs. If the plane of the fault is verified within the facility's boundaries, a discussion of measures that will be taken to mitigate adverse effects on the facility and the environment;
- 7. for units of a facility located in a seismic impact zonewhich did not receive waste before October 9, 1993, a report with calculations demonstrating that the facility will be designed and operated so that all containment structures, including liners, leachate collection systems, and surface water control systems, can withstand the stresses caused by the maximum horizontal acceleration in lithified earth material for the site.
- 8. Facilities shall not be located in an unstable area unless the permit holder or applicant can demonstrate that the facility is designed to ensure the integrity of structural components, such as liners, leak-detection systems, leachate collection, treatment and removal systems, final covers, run-on/runoff systems (or any other component used in the construction and operation of the facility that is necessary for the protection of human health or the environment). In determining whether an area is unstable, the permit holder or applicant must consider, at a minimum, the following factors:
- a. on-site or local soil conditions that may result in significant differential settling;
 - b. on-site or local geologic or geomorphological features; and
- c. on-site or local human-made features or events (both surface and subsurface).
 - E. Facility Subsurface Hydrology.
- 1. Delineation of the following information for the water table and all permeable zones from the ground surface to a depth of at least 30 feet below the base of excavation:
 - a. areal extent beneath the facility;
 - b. thickness and depth of the permeable zones and fluctuations;

c. direction(s) and rate(s) of groundwater flow based on information
obtained from piezometers and shown on potentiometric maps; and
d. A minimum of three piezometers or monitoring wells in the same
zone must be provided in order to determine groundwater flow direction.
e. any change in groundwater flow direction anticipated to result
from any facility activities.
2. delineation of the following, from all available information, for all
recognized aquifers which have their upper surfaces within 200 feet of the ground surface:
a. areal extent;
b. thickness and depth to the upper surface;
c. any interconnection of aquifers; and
d. direction(s) and rate(s) of groundwater flow shown on
potentiometric maps.
F. Facility Plans and Specifications.
1. Certification—Plans, specifications, and operations represented and
described in the permit application or permit modifications for all facilities must be prepared
under the supervision of and certified by a registered engineer, licensed in the state of Louisiana.
The person who prepared the permit application must provide the following certification:
"I certify under penalty of law that I have personally examined and I am familiar
with the information submitted in this permit application and that the facility as described in this
permit application meets the requirements of the Solid Waste Rules and Regulations. I am aware
that there are significant penalties for knowingly submitting false information, including the
possibility of fine and imprisonment."
2. The following information on plans and specifications is required:
a. detailed plan-view drawing(s) showing original contours, proposed
elevations of the base of units prior to installation of the liner system, and boring locations;
b. detailed drawings of slopes, levees, and other pertinent features;
<u>and</u>
c. the type of material and its source for levee construction.
Calculations shall be submitted demonstrating that an adequate volume of material is available
for the required levee construction.
d. Surface impoundments shall be designed, constructed, maintained,
and operated to prevent overtopping by overfilling, wave action, or action of storms.
3. Levee Construction
a. Levees or other protective measures must be provided in order to
protect the facility against the 100-year flood so as to prevent the washout of solid waste.
b. If levees are required to protect the facility against the 100-year
flood, such perimeter levees shall be engineered to minimize wind and water erosion and shall
have a grass cover or other protective cover to preserve structural integrity and shall provide
adequate freeboard above the 100-year flood elevation.
4. Liners
a. The standards in Subsection B.4 of this Section apply to liners for
Type I proposed surface impoundments and for surface impoundments constructed subsequent to
the required upgrade date specified in LAC 33:VII.315.G. (Units of surface impoundments on
which construction is completed prior to the upgrade date specified in LAC 33:VII.315.G and
<u> </u>

which have received a temporary permit or standard permit prior to February 1, 1993, are not governed by these liner standards.) b. The permit holder or applicant must provide and implement a quality-control and quality-assurance plan for liner construction and maintenance that will ensure that liners are designed, constructed, installed, and maintained properly. All facilities must have quality-control plans for the excavations. All excavations and liners shall be inspected and certified by a registered engineer, licensed in the state of Louisiana, with the appropriate expertise. The permit holder or applicant must demonstrate that the liner is placed upon a base that provides the following: adequate support for the contents: i. ii. maximum resistance to settlement of a magnitude sufficient to affect the integrity of the liner or the proper positioning of the leachate-collection or leakdetection system; iii. maximum resistance to hydrostatic heave on the sides or bottom of the excavation; and iv. maximum resistance to desiccation. Units of surface impoundments shall be lined along the sides and bottom with a composite liner consisting of a geomembrane liner at least 30-mil thick installed directly above and in uniform contact with a three-foot recompacted clay liner having a hydraulic conductivity no greater than 1 x 10⁻⁷ cm/sec which has been installed under the supervision of a registered engineer, licensed in the state of Louisiana and with the appropriate expertise. (If the geomembrane component is high-density polyethylene, then the geomembrane component must be at least 60-mil thick. Any geomembrane liner used must be compatible with the solid waste and leachate in the unit.) An alternative liner system which will provide equivalent or greater groundwater protection at the site as compared to the composite liner, as demonstrated by generally accepted modeling techniques and based on factors specific to the site and to the solid wastes received, may be used. The burden of proof of adequacy of the alternate liner design shall be on the permit holder or applicant. Secondary liners may be constructed below and in addition to the The specifications of secondary liners must be approved by the required composite liner. administrative authority on an individual basis. A leak-detection system may be constructed between the required f. composite liner and any secondary liner. The specifications of the leak-detection system must be approved by the administrative authority on an individual basis. Special design conditions may be required in areas where the groundwater table is high or where other circumstances warrant such conditions as determined by the administrative authority. These special design standards may include more protective or stringent standards such as secondary liners (described in Subsection B.3.e of this Section) or leak-detection systems, or other conditions. 7. **Groundwater Monitoring** At each facility, a groundwater-monitoring system must be a. installed that consists of a sufficient number of wells, installed at appropriate locations and depths, to yield groundwater samples from the uppermost aquifer (and the uppermost water-

bearing permeable zone which will yield sufficient quantities of water for sampling if different

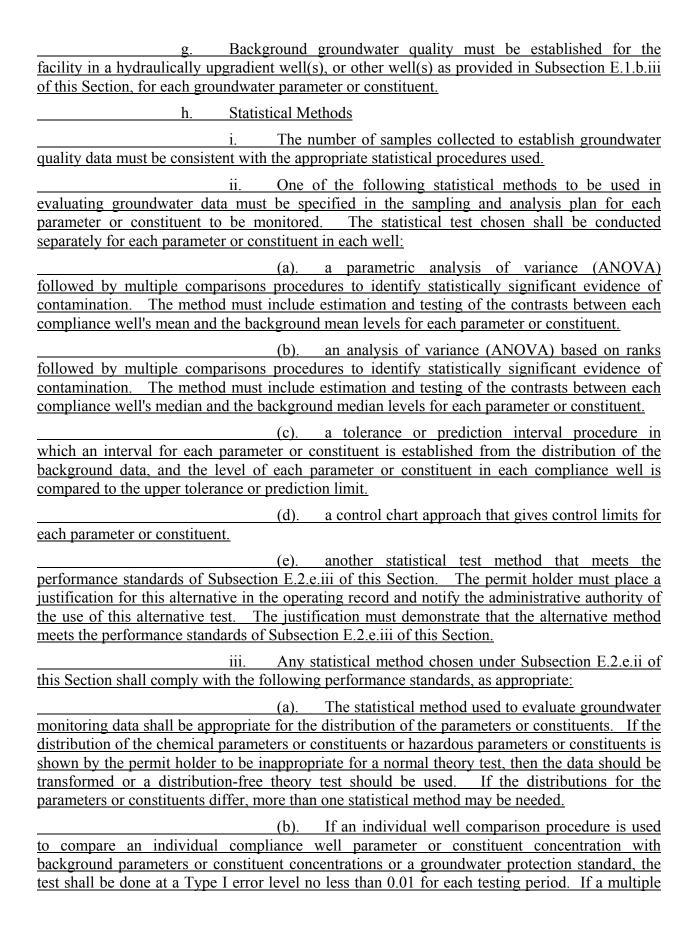
from the uppermost aquifer and if deem	ned necessary by the administrative authority for adequate
groundwater monitoring at the facility)	that:
i. re	present the quality of the background groundwater that
has not been affected by leakage from a	unit; and
	present the quality of groundwater passing the relevant
	s of these regulations, the relevant point of compliance is
	no more than 150 meters downgradient from the unit(s)
_	to the uppermost aquifer underlying the facility and any
	d. The relevant point of compliance must be on property
• •	er and must be selected and subject to the approval of the
administrative authority based on at lea	
(a). hydrological characteristics of the facility and the
surrounding land;	
(b). volume and physical and chemical characteristics of
the leachate;	
<u>(c</u>). quantity, quality, and direction of flow of
groundwater;	
(d). proximity and withdrawal rate of the groundwater
users;	
<u>(e</u>	• • • • • • • • • • • • • • • • • • • •
(<u>f</u>	
	imulative impacts on the groundwater, and whether the
groundwater is currently used or reason	ably expected to be used for drinking water;
(g	· · · · · · · · · · · · · · · · · · ·
). practicable capability of the owner or operator.
	of Wells—a scaled map indicating well locations and the
relevant point of compliance.	
	nough monitoring wells must be located hydraulically
	nples that represent background groundwater quality as
required in Subsection E.1.a of this Sec	
ii. A	minimum of one upgradient well per zone monitored is
required.	
	onitoring wells other than upgradient of the facility may
be sampled for background groundwate	
(a	<i>/</i>
holder to determine which wells are hyd	· · · · · · · · · · · · · · · · · · ·
<u> </u>). sampling at other wells will provide an indication of
	more representative than sampling of upgradient wells.
	nough monitoring wells must be located hydraulically
<u> </u>	mples that are representative of the groundwater passing
	east two downgradient wells per zone monitored must be
÷ •	st be screened in the same zone as the upgradient well(s).
· • · · · · · · · · · · · · · · · · · ·	hall not exceed 800 feet unless otherwise approved by the
administrative authority	

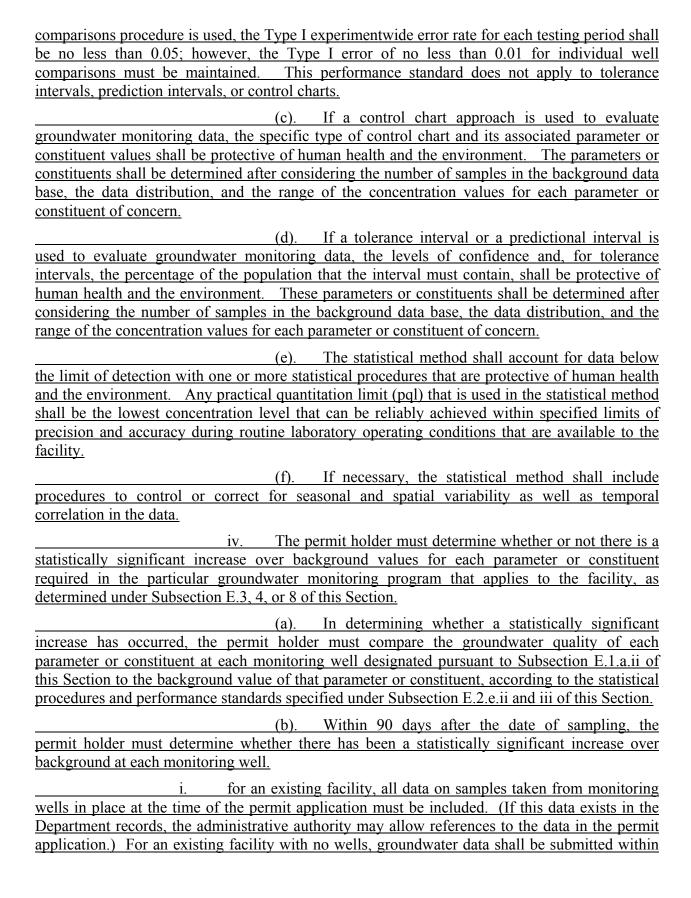


Post Construction. Within 90 days after construction of the wells, the permit holder or applicant must submit well-completion details to verify that the wells were constructed according to the approved specifications and to document construction procedures. A permit modification fee will not be required. Well-completion details should include but are not limited to: daily field notes documenting construction procedures and any unusual occurrences such as grout loss, etc.; boring log for each well including surface elevation(s) with ii. respect to mean sea level or comparable reference points; as-built diagrams for each well showing all pertinent iii. features such as elevation of reference point for measuring groundwater levels, screen interval, and ground surface. If features change from the approved plans, then a permit-modification request must be submitted in accordance with LAC 33:VII.517. Plugging and Abandonment of Monitoring Wells and Geotechnical e. **Borings** The "Water Wells Rules and Regulations, State of Louisiana" (LAC 70:XIII), as adopted by the Louisiana Department of Transportation and Development, Water Resource Section, shall apply to all plugging and abandonment of wells and holes including, but not limited to, observation wells, monitoring wells, piezometer wells, leakdetection wells, assessment wells, recovery wells, abandoned pilot holes, test holes, and geotechnical boreholes. ii. In addition to the standards in LAC 70:XIII, the following standards shall apply to plugging and abandonment: (a). For any well, the primary method of plugging and abandonment shall be removal of the well's casing and other components of the well including but not limited to the screen, grout, bentonite seal, filter pack, concrete slab, protective casing, guard posts, and native soil in immediate contact with the grout and subsequent installation of cement-bentonite grout, from the bottom of the resulting borehole to the ground surface using the tremie method. (b). In areas where all or a part of the well's casing and other components of the well cannot be plugged and abandoned in accordance with the procedure stated in Subsection E.1.e.ii.(a) of this Section, the well shall be plugged and abandoned by installation of cement-bentonite grout inside the well's casing, from the bottom of the well to the ground surface, provided that the annular seal is demonstrated to be adequately sealed and the following items are submitted: (c). supporting documentation, prior to plugging the well that demonstrates that removal of all or part of the well's casing and other components of the well in accordance with the procedure stated in Subsection E.1.e of this Section, will be detrimental to the environment; and/or (d). certification and supporting documentation by a qualified professional that shows that removal of the well's casing was attempted and that continued attempts to remove all or a part of the well's casing and other components of the well as stated in Subsection E.1.e of this Section, would have been detrimental to the environment. iii. After plugging and abandoning a well, all surface features of the well including but not limited to the concrete slab, guard posts and protective casing, shall

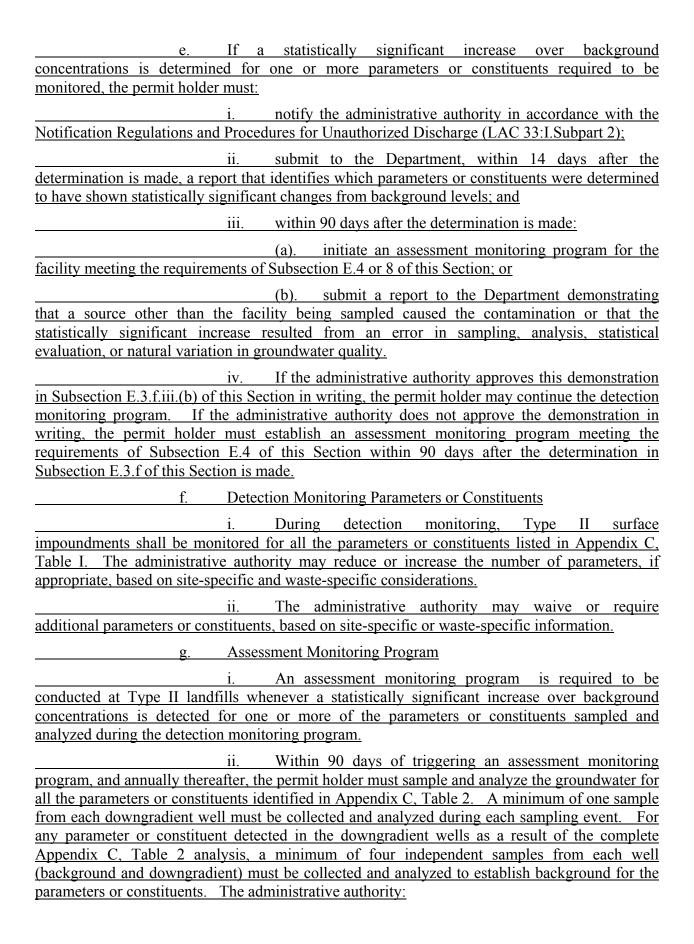
be dismantled and disposed of in an environmentally sound manner and the surface shall be
restored to its original condition.
iv. The permit holder must notify the Department of the
plugging and abandonment of monitoring wells or geotechnical borings and keep records of such
abandonments. Monitoring wells piezemeters and other measurement
v. Monitoring wells, piezometers, and other measurement, sampling, and analytical devices must be operated and maintained so that they perform to design
specifications throughout the life of the monitoring program.
specifications throughout the fire of the monitoring program.
AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et
<u>seq.</u>
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality,
Office of Solid and Hazardous Waste, Solid Waste Division, LR 19:187 (February 1993),
repromulgated LR 19:1315 (October 1993).
f. A groundwater monitoring program including a sampling and
analysis plan that includes consistent sampling and analysis procedures and that meet the
requirements of Appendix C to ensure that monitoring results are representative of groundwater
quality at the background and downgradient well locations.
i. sample collection which ensures that collected samples are
representative of the zone(s) being monitored and prevents cross-contamination of or tampering
with samples;
- · · ·
ii. sample preservation and shipment which ensure the integrity and reliability of the sample collected for analysis;
iii. chain of custody control; and
iv. quality-assurance/quality-control, including detection
limits, precision and accuracy of analyses, field blanks, and laboratory spikes and blanks.
v. The sampling and analysis plan must also include the:
(a). selection of parameters or constituents to be sampled
and analyzed during detection monitoring and justification for parameters or constituents where
applicable;

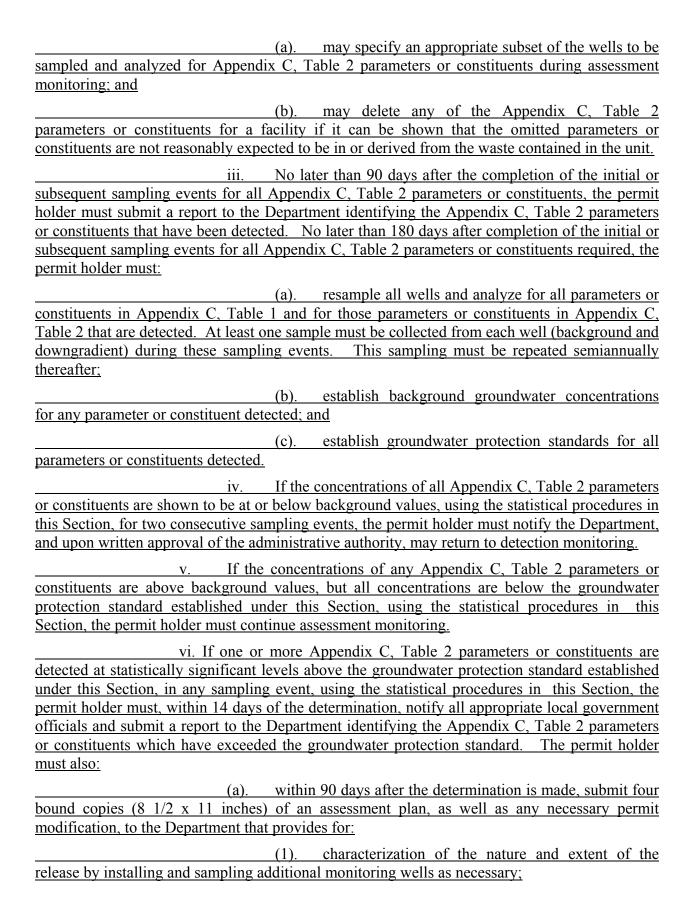
(b). identification of analytical procedures to be followed (reference source of analytical method);
(c). sampling frequency during the detection monitoring
<u>program;</u>
(d). statistical method to be used in evaluating the
groundwater-monitoring data for each groundwater parameter or constituent sampled at each
monitoring well; and
(e). practical quantitation limit (PQL) for each
parameter or constituent.

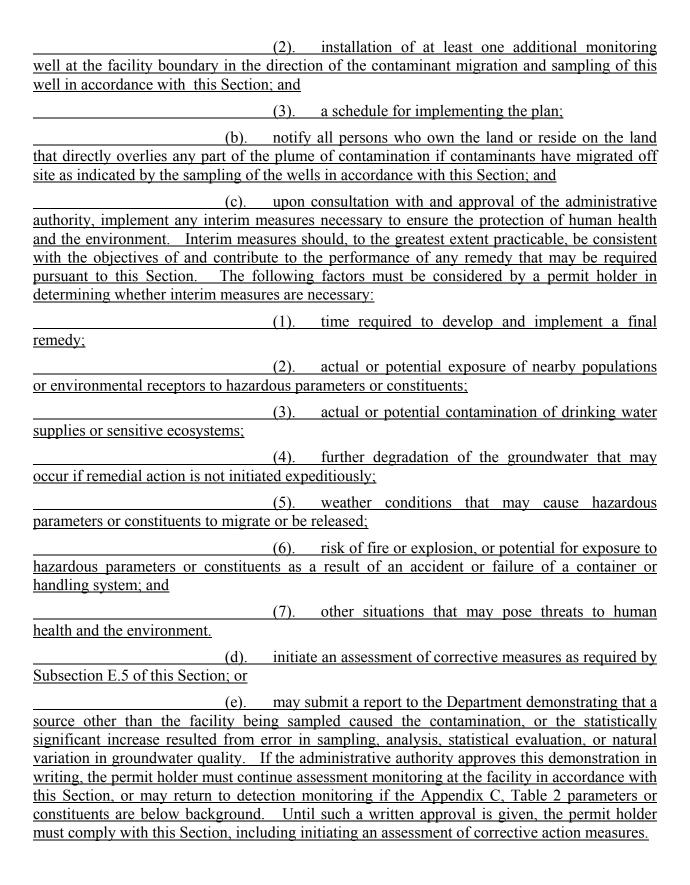


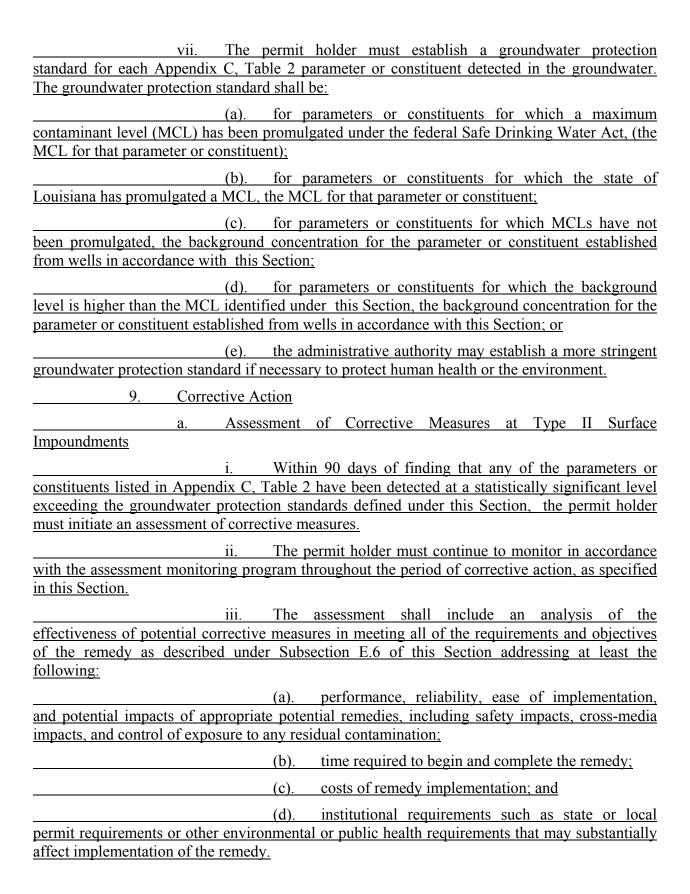


90 days after the installation of monitoring wells. For a new facility, groundwater data (one sampling event) shall be submitted before waste is accepted;
j. a plan for detecting, reporting, and verifying changes in
groundwater; and
8. Detection Monitoring Program
a. Initial Sampling
i. For a new facility, monitoring wells must be sampled and
the analytical data for a sampling event must be submitted before waste is accepted.
ii. For an existing facility with no wells in place at the time of
the application submittal or at the time at which the facility becomes subject to these regulations, the analytical data shall be submitted within 90 days after installation of the monitoring wells.
iii. A minimum of four independent samples from each well
(upgradient and downgradient) must be collected and analyzed during the first sampling event
for a facility. Thereafter, at least one sample must be collected and analyzed at each well for
each sampling event.
b. For the first year of monitoring and thereafter, sampling and
analysis of all wells must be conducted every six months.
c. The groundwater monitoring program must be conducted for the
life of the facility and for the duration of the post-closure care period of the facility.
Groundwater monitoring may be extended beyond the period specified if deemed necessary by
the administrative authority.
d. The permit holder or applicant must submit two bound copies (8
1/2 by 11 inches) of a report of all groundwater sampling results to the Department no later than
90 days after each sampling event. Additional copies may be requested at a later date. The
reports must be submitted on forms provided by the administrative authority and shall include at
a minimum:
i. documentation of the chain of custody of all sampling and
analyses;
ii. scaled potentiometric surface maps showing monitoring-
well locations, groundwater elevations with respect to mean sea level for each stratum
monitored;
iii. isopleth map for each well of all parameters or constituents
or plots by well of concentration of parameters or constituents versus time;
•
iv. for the initial sampling only, a boring log for each well
showing the screened interval and ground surface elevation with respect to mean sea level; and
showing the screened interval and ground surface elevation with respect to mean sea level; and v. a statement of whether a statistically significant difference





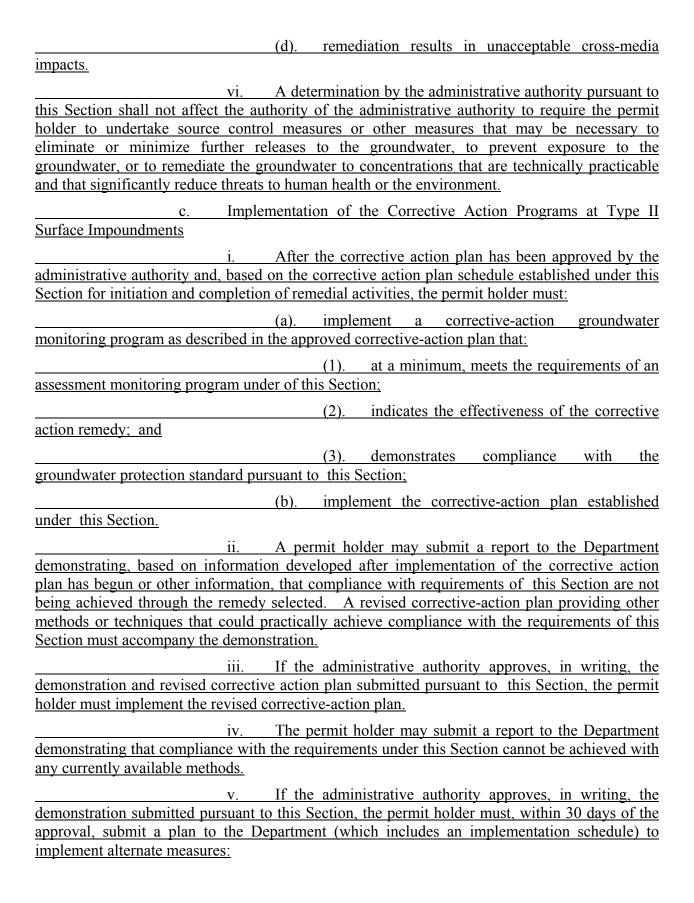




iv. The results of the corrective measures assessment must be
discussed by the permit holder, in a public meeting prior to the selection of remedy, with
interested and affected parties.
b. Selection of Remedy and Corrective Action Plan at Type II
b. Selection of Remedy and Corrective Action Plan at Type II Surface Impoundments
Surface impoundments
i. Based on the results of the corrective measures assessment
conducted under this Section, the permit holder must select a remedy that, at a minimum, meets
the standards of this Section. Within 180 days after initiation of the corrective measures
assessment required in this Section, the permit holder must submit four bound copies (8 1/2 by
11 inches) of a corrective-action plan, describing the selected remedy, which will meet the
requirements of this Section. The corrective-action plan must also provide for a corrective-
action groundwater monitoring program as described in this Section.
ii. Remedies must:
(a). be protective of human health and the environment;
(b). attain the groundwater protection standard as
specified pursuant to this Section;
(c). control the source(s) of releases so as to reduce or
eliminate, to the maximum extent practicable, further releases of Appendix C, Table 2
parameters or constituents into the environment that may pose a threat to human health or the
environment; and
(d). comply with standards for management of wastes as
specified in this Section;
iii. In selecting a remedy that meets the standards of this
Section, the permit holder shall consider the following evaluation factors:
(a). long- and short-term effectiveness and
protectiveness of the potential remedy(s), along with the degree of certainty that the remedy will
prove successful based on consideration of the following:
(1). magnitude of reduction of existing risks;
(2). magnitude of residual risks in terms of
likelihood of further releases due to waste remaining following implementation of a remedy;
(3). type and degree of long-term management
required, including monitoring, operation, and maintenance;
(4). short-term risks that might be posed to the
community, workers, or the environment during implementation of such a remedy, including
potential threats to human health and the environment associated with excavation, transportation,
and redisposal of containment;
(5). time until full protection is achieved;

(6).	
environmental receptors to remaining wastes, or	considering the potential threat to human health
and the environment associated with excavation,	transportation, redisposal, or containment;
(7)	long-term reliability of the engineering and
institutional controls; and	long term remainly of the engineering and
<u> </u>	
(8).	potential need for replacement of the
remedy.	
(b). effe	ectiveness of the remedy in controlling the
source to reduce further releases based on consid	leration of the following factors:
(1).	extent to which containment practices will
reduce further releases;	extent to which contaminent practices will
.	
(2).	extent to which treatment technologies may
be used.	
(c). ease	e or difficulty of implementing a potential
remedy(s) based on consideration of the following	ng types of factors:
(1).	degree of difficulty associated with
constructing the technology;	degree of difficulty associated with
(2).	expected operational reliability of the
technologies;	
(3).	need to coordinate with and obtain
necessary approvals and permits from other ager	ncies;
(4).	availability of necessary equipment and
specialists; and	availability of necessary equipment and
· · ·	
(5).	available capacity and location of needed
treatment, storage, and disposal services.	
(d). prae	cticable capability of the permit holder,
including a consideration of the technical and ec	onomic capability; and
(e). deg	ree to which community concerns are addressed
by a potential remedy(s).	Tee to which community concerns are addressed
• • •	
<u>-</u>	t holder shall specify as part of the selected
	ting remedial activities. Such a schedule must
require the initiation of remedial activities with	
holder must consider the following factors in det	ermining the schedule of remedial activities.
(a). exte	ent and nature of contamination;
(b). prac	ctical capabilities of remedial technologies in
• • • • • • • • • • • • • • • • • • • •	ion standards established under this Section and
other objectives of the remedy;	ton sumanus estachenea anaci une section ana
•	
<u> </u>	ilability of treatment or disposal capacity for
wastes managed during implementation of the re	meuy;

(d). desirability of utilizing technologies that are not
currently available, but which may offer significant advantages over already available
technologies in terms of effectiveness, reliability, safety, or ability to achieve remedial
<u>objectives;</u>
(e). potential risks to human health and the environment
from exposure to contamination prior to completion of the remedy;
(f). resource value of the aquifer including:
(1). current and future uses;
(2). proximity and withdrawal rate of users;
(3). groundwater quantity and quality;
(4). potential damage to wildlife, crops, vegetation, and physical structures caused by exposure to parameters or constituents;
(5). hydrogeologic characteristic of the facility
and surrounding land;
(6). groundwater removal and treatment costs;
<u>and</u>
(7). cost and availability of alternative water
supplies;
(g). practicable capability of the permit holder; and
(h). other relevant factors.
v. The administrative authority may determine that
remediation of a release of an Appendix C, Table 2 parameter or constituent from a facility is not
necessary if the permit holder demonstrates to the satisfaction of the administrative authority
<u>that:</u>
(a). the groundwater is additionally contaminated by
substances that have originated from a source other than a facility and those substances are
present in such concentrations that cleanup of the release from the facility would provide no
significant reduction in risk to actual or potential receptors; or
(b). parameter or constituent is present in groundwater
<u>that:</u>
(1). is not currently or reasonably expected to be
a source of drinking water; and
(2). is not hydraulically connected with waters to
which the parameters or constituents are migrating or are likely to migrate in a concentration that
would exceed the groundwater protection standards established under this Section; or
(c). remediation of the release(s) is technically
impracticable; or

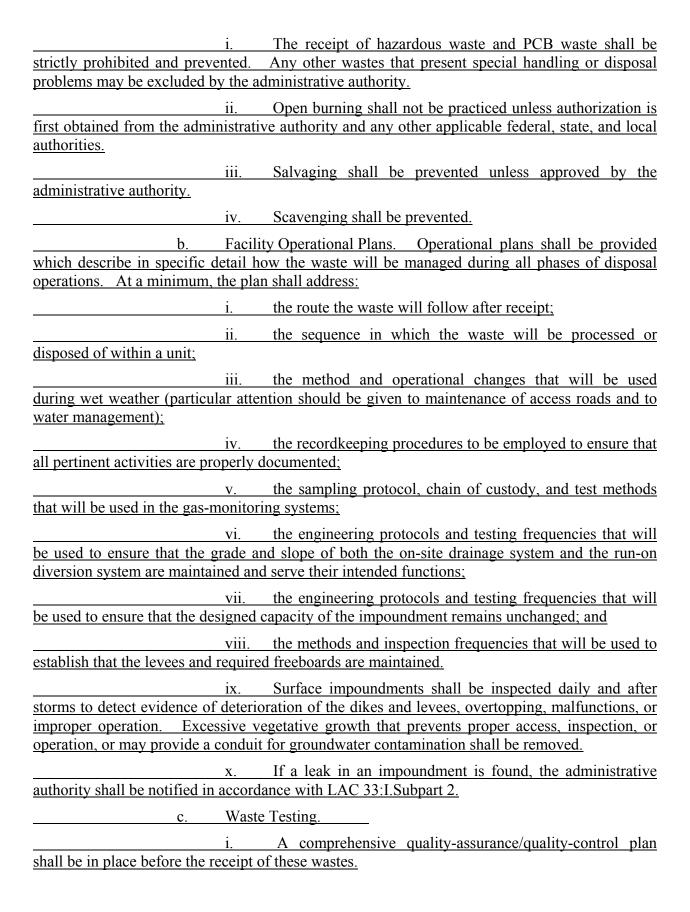


(a). to control exposure of humans and the environment
to residual contamination as necessary to protect human health and the environment; and
(b). for the control of the sources of contamination, or
for the removal or decontamination of equipment, devices, or structures, that are technically
practicable and consistent with the overall objective of the remedy.
vi. If the administrative authority approves the plan for
alternate measures submitted pursuant to this Section, the permit holder must implement the
<u>plan.</u>
vii. All solid wastes that are managed pursuant to a remedy
required under this Section, or an interim measure required under this Section, shall be managed
in a manner:
(a). that is protective of human health and the
environment; and
(b). that complies with applicable RCRA requirements.
viii. Remedies selected pursuant to this Section shall be considered complete when:
(a). the permit holder complies with the groundwater
protection standards established under this Section at all points within the plume of
contamination that lie beyond the groundwater monitoring well system established under this Section; and
(b). compliance with the groundwater protection
standards established under this Section has been achieved by demonstrating that concentrations of Amendia C. Table 2 parameters or constituents have not exceeded the groundwater protection
of Appendix C, Table 2 parameters or constituents have not exceeded the groundwater protection standard(s) for a period of three consecutive years using the statistical procedures and
performance standards in this Section. The administrative authority may specify an alternative
length of time during which the permit holder must demonstrate that concentrations of Appendix
C, Table 2 parameters or constituents have not exceeded the groundwater protection standard(s)
taking into consideration:
(1). extent and concentration of the release(s);
(2). behavior characteristics of the hazardous
parameters or constituents in the groundwater;
(3). accuracy of monitoring or modeling
techniques, including any seasonal, meteorological, or other environmental variabilities that may
affect the accuracy; and
(4). characteristics of the groundwater;
(c). all actions required to complete the remedy have
been satisfied.
(1). Upon completion of the remedy, the permit
holder must submit to the administrative authority within 14 days a certification that the remedy

has been completed in compliance with the requirements of this Section. The certification must be signed by the permit holder and approved by the administrative authority.
(2). When, upon completion of the certification, the administrative authority determines that the corrective action remedy has been completed in accordance with the requirements under this Section, the permit holder shall be released from the requirements for financial assurance for corrective action under LAC 33:VII.727.B.
10. The facility plans and specifications for Type II surface impoundments must provide a gas collection and treatment or removal system.
a. Each unit of the facility with a potential for methane gas production and migration shall be provided with a methane gas collection and treatment or removal system.
b. The collection system shall be vented to the atmosphere or connected to a dispersal system or resource recovery system in accordance with accepted practices.
c. The gas collection and treatment or removal system shall be such that it limits methane gas to lower-explosive limits at the facility boundary and to 25 percent of the lower-explosive limits in facility buildings.
d. Sampling protocol, chain of custody, and test methods shall be established for all gas collection and treatment or removal systems.
e. Comply with Clean Air Act Amendments requirements.
G. Facility Administrative Procedures.
1. Recordkeeping and Reports:
a. The permit holder shall submit annual reports to the administrative authority indicating quantities and types of solid waste (expressed in wet-weight tons per year), received from in-state generators and from out-of-state generators, during the reporting period. If applicable, the annual report shall also indicate the estimated remaining permitted capacity at the facility as of the end of the reporting period (expressed in wet-weight tons). All calculations used to determine the amounts of solid waste received for disposal and to determine remaining capacity during the annual-reporting period shall be submitted to the administrative authority. A form to be used for this purpose must be obtained from the department.
b. The reporting period for the processor and/or disposer annual report shall be from July 1 through June 30, and terminating upon closure of the facility in accordance with the permit.
c. Annual reports shall be submitted to the administrative authority by August l of each reporting year.
d. The annual report is to be provided for each individual permitted facility on a separate annual-reporting form.
e. A facility which receives industrial solid waste shall utilize, in its annual report the seven-digit industrial waste number that has been assigned by the

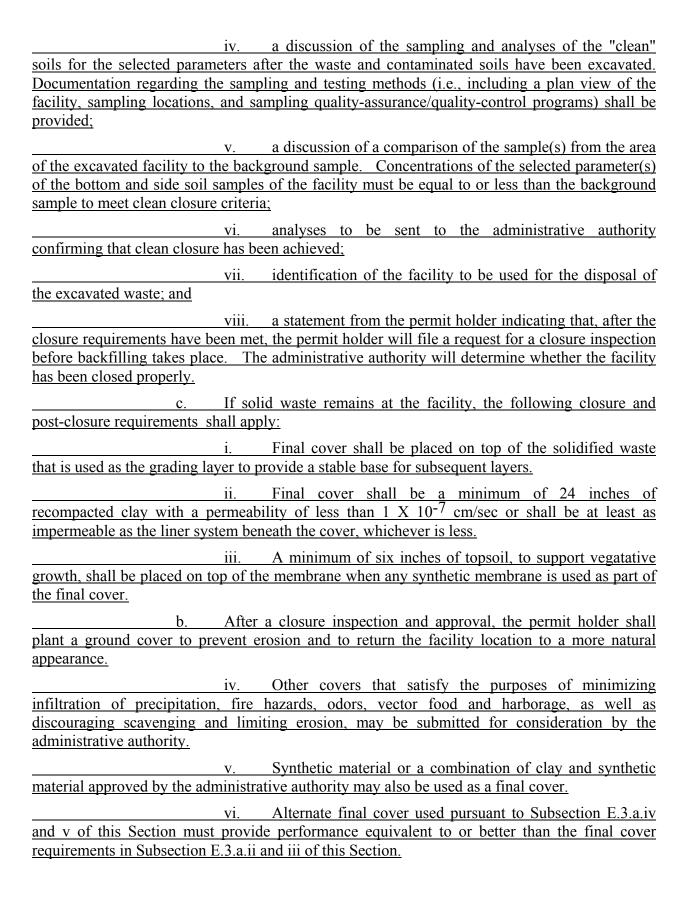
administrative authority or cosolid waste generator.	lisposal	facilitie	es autho	rized to	issue su	ich numl	bers to	the industrial
-	mi.	*. 1	11 1	11 .		C :1:4	11	1 '6 1
in the application as necessa	_							ords specified
required reports. These rec								
on file for at least three years			amame	u ioi tii	ic inc or	the facil	ity and	shan be kept
σ			holder	shall	maintai	n recor	ds of	transporters
transporting waste for proce		•						
of receipt of shipments of wa								
the administrative authority.								
<u>h.</u>	Recor	ds kept	on site	for all	l facilitie	es shall	include	, but not be
<u>limited to:</u>								
	i.	copies	of the	applica	ble Lou	isiana sc	olid wa	ste rules and
regulations;								
	ii.	the per	mit;					
	iii.	the per	mit app	lication	<u>.</u>			
	iv.	permit	modific	ations;				
	V.	certifie	ed field 1	notes fo	r constru	iction;		
	vi.	operate	or trainii	ng prog	rams;			
	vii.	daily l	<u>og;</u>					
	viii.	quality	-assurar	nce/qua	lity-cont	rol record	ds;	
	ix.	inspec	tions by	the per	mit holde	er or ope	rator;	
	X.				_			letection and
cover systems are constructe	d or ins	talled in	accorda	ance wi	th approp	oriate ass	<u>surance</u>	procedures;
	xi.	monito	oring, tes	sting, or	analytic	al data;		
	xii.	any ot	her appl	icable o	or require	ed data d	leemed	necessary by
the administrative authority;								
	xiii.	record	s on gro	undwate	er sampli	ing resul	ts; and	
	xiv.	post-cl	osure m	onitorir	ng report	s; and		
-	XV.	copies	of all d	ocumen	its receiv	ed from	or sub	mitted to the
department.								
2. Person classification, required to op-				ne minii	mum per	sonnel, l	listed by	y general job
a.				the n	erconnel	necess	arv to	achieve the
operational requirements of t			.11 11avC	тте р	CISUIIICI	1100038	ury to	ucineve tile
-		_ _	olved in	waste h	andlino	at the fac	eility m	ust be trained
in procedures to recognize an	-				_		-	

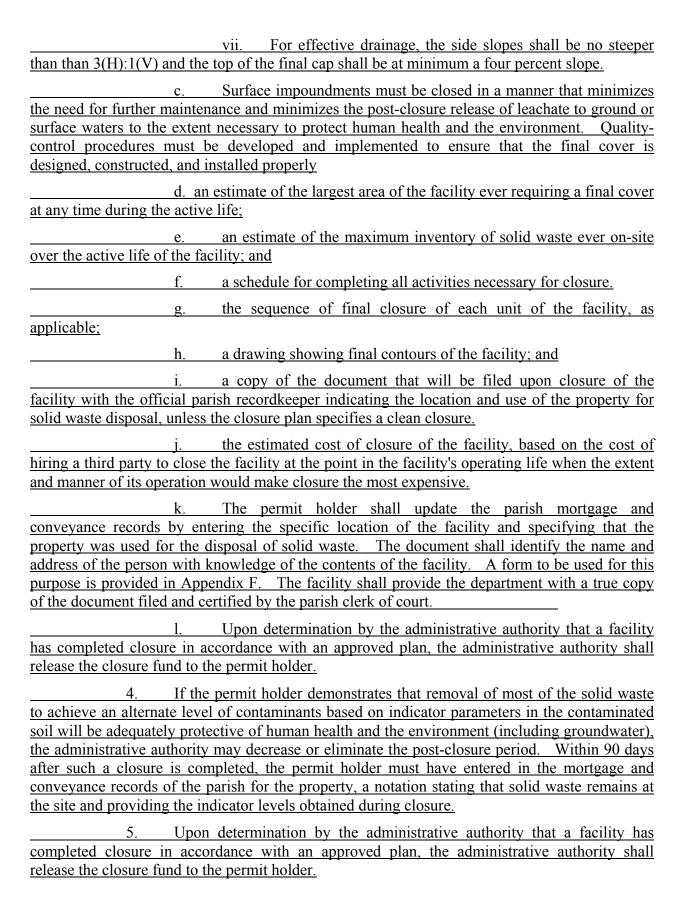
3. maximum days of operation per week and per facility operating day
minimum hours of operation within a 24-hour period).
H. Facility Operations.
1. types of waste (including chemical, physical, and biological characteristics
of industrial wastes generated on-site), maximum quantities of wastes per year, and sources of
waste to be processed or disposed of at the facility;
2. waste-handling procedures from entry to final disposition, which could include shipment of recovered materials to a user;
3. minimum equipment to be maintained to meet the facilities' operational
needs.
4. plan to segregate wastes, if applicable;
5. procedures planned in case of breakdowns, inclement weather, and other abnormal conditions (including detailed plans for wet-weather access and operations);
6. Emergency procedures, equipment, and contingency plans for protecting employees and the general public from accidents, fires, explosions, etc., and provisions for emergency care should an accident occur (including proximity to a hospital, fire and emergency services, and training programs); and
a. A plan outlining facility operations and emergency procedures to be followed in case of accident, fire, explosion, or other emergencies shall be developed and filed with the administrative authority and with the local fire department and the closest hospital or clinic. The plans shall be updated annually or when implementation demonstrates that a revision is needed.
b. Training sessions concerning the procedures outlined in Subsection D.5.a of this Section shall be conducted annually for all employees working at the facility. A copy of the training program shall be filed with the administrative authority.
7. Provisions for controlling vectors, dust, litter, and odors.
8. Operational Plan. A comprehensive operational plan describing the total operation, including but not limited to inspection of incoming waste to ensure that only permitted wastes are accepted; traffic control; support facilities; equipment operation; personnel involvement; and day-to-day activities. A quality- assurance/quality-control [QA/QC] plan shall be provided for facilities receiving industrial waste; incinerator ash; nonhazardous petroleum- contaminated media; debris generated from underground storage tanks [UST]; friable asbestos; or other special wastes as determined by the administrative authority. The QA/QC plan shall include but not be limited to the necessary methodologies; analytical personnel; preacceptance and delivery restrictions; and appropriate responsibilities of the generator, transporter, processor, and disposer. The QA/QC plan shall ensure that only
permitted, nonhazardous wastes are accepted;
a. Facility Limitations



9. The operational plans for facilities receiving waste with a potential to
produce gases must include a comprehensive air monitoring plan.
a. Air-monitoring Standards
i. Facilities receiving waste with a potential to produce
methane gas shall be subject to the air-monitoring requirements.
ii. The permit holder or applicant subject to air-monitoring requirements shall submit to the administrative authority a comprehensive air-monitoring plan that will limit methane gas levels to less than the lower-explosive limits at the facility boundary and to 25 percent of the lower-explosive limits in facility buildings.
(a). The type and frequency of monitoring must be
determined based on the following factors:
(i). soil conditions;
(ii). hydrogeologic conditions surrounding the
facility;
(iii). hydraulic conditions surrounding the
facility; and
(iv). the location of the facility structures and
property boundaries.
(b). The minimum frequency of monitoring shall be
quarterly.
<u>iii.</u> If methane gas levels exceeding the limits specified in Subsection D.3.a.ii of this Section are detected, the owner or operator must:
(a). immediately take all necessary steps to ensure
protection of human health and notify the administrative authority;
(b). within seven days of detection, submit a report to
the administrative authority that provides the methane gas levels detected and a description of the steps taken to protect human health; and
(c). within 30 days of detection, submit a remediation
plan for the methane gas releases to the administrative authority. The plan shall describe the nature and extent of the problem and the proposed remedy, and shall include an implementation schedule. The plan must be implemented within 60 days of detection.
iv. The permit holder shall notify the administrative authority
when strong odors occur at facility boundaries or when methane gas levels exceed the limit specified in Subsection D.3.a.ii of this Section.
v. Records of inspections, surveys, and gas monitoring
results shall be maintained at the facility.
.vii. Facilities must ensure that the units not violate any
applicable requirements developed under a state implementation plan (SIP) approved or promulgated pursuant to Section 110 of the Clean Air Act, as amended

I. Imple	ementation Plan.
1.	A construction schedule for existing facilities which shall include
	ig time-frames and time-frames for the installation of all major features such and liners. (Time-frames must be specified in days, with day one being the mit issuance); and
	details on phased implementation if any proposed facility is to be
constructed in phase	
existing operating a replacement facility.	reas if the application is for expansion of a facility or construction of a
J. Facili	ity Closure Requirements
notify the administra	Notification of Intent to Close a Facility. All permit holders shall ative authority in writing at least 90 days before closure or intent to close, any individual units within a facility and shall provide the following
	a. date of planned closure;
	b. changes, if any, requested in the approved closure plan; and
	c. closure schedule and estimated cost.
2. requirements for sur	Preclosure Requirements. The following standards apply to preclosure face impoundments with on-site closure:
provide a gas collect	a. All facilities with a potential for gas production or migration shall tion and treatment or removal system.
prevent overflow of	b. The runoff-diversion system shall be maintained and modified to the facility to adjoining areas.
3.	Closure Requirements
dewatered or remove	a. Surface liquids and sludges containing free liquids shall be
	b. If a clean closure is achieved, there are no further post-closure
	closure plan must reflect a method for determining that all waste has been
removed and such a	plan shall, at a minimum, include the following:
entered the facility;	i. identification (waste analysis) of the wastes that have
	ii. selection of the indicator parameters to be sampled which
	vaste that have entered the facility in order to establish clean-closure criteria.
Justification of the p	arameters selected shall be provided in the closure plan;
	iii. sampling and analyses of the uncontaminated soils in the facility for a determination of background levels using the indicator A diagram showing the location of the area proposed for the background
-	a description of the sampling and testing methods, shall be provided;





K. Fa	cility Post-closure.
1.	The post-closure plan must include the following:
	a. specification of the long-term use of the facility after closure, as
anticipated; and	<u></u>
	b. the cost of conducting post closure of the facility, based on the
estimated cost of	hiring a third party to conduct post-closure activities in accordance with the
closure plan.	-
	c. the method for conducting post-closure activities, including a
description of the	e monitoring and maintenance activities and the frequency at which they will be
performed;	
	d. the method for abandonment of monitoring systems, leachate
collection system	s, gas-collection systems, etc.;
	e. measures planned to ensure public safety, including access control
and gas control; a	
	f. a description of the planned uses of the facility during the post-
closure period.	ii w woodipron of the promise was a me include your
-	g. The anticipated length of post closure
2.	Post-closure Care Length
	a. Facilities which receive solid waste on or after October 9, 1993,
must remain in p	ost-closure care for 30 years after closure of the facility.
	b. Existing facilities which do not receive waste on or after October
9, 1993, must ren	nain in post-closure care for three years after closure of the facility.
	c. However, if the facility received waste on or after October 9, 1991,
	nust be maintained as specified in Subsection F.2.b of this Section for 30 years
after closure.	
	d. The length of the post-closure care period for landfills may be:
	i. decreased by the administrative authority if the permit
	ates that the reduced period is sufficient to protect human health and the
	d this demonstration is approved by the administrative authority (Any
	ust provide supporting data, including adequate groundwater monitoring data.);
<u>or</u>	
1	ii. increased by the administrative authority if the
health and the en	athority determines that the lengthened period is necessary to protect human
incarm and the ch	
of at least the following	The post-closure care, except as otherwise specified above, must consist
of at itast the 101	
(in aludin a1.	a. maintaining the integrity and effectiveness of the final cover
uncluding makin	g repairs to the cover as necessary to correct the effects of settling, subsidence,

erosion, or other events), preventing run-on and runoff from eroding or otherwise damaging the final cover; and providing annual reports to the department on the integrity of the final cap;
b. maintaining and operating, if applicable, the leak-detection system;
c. maintaining and operating the gas-collection, and treatment or, removal system and the gas-monitoring system; and
d. maintaining and monitoring the groundwater-monitoring system.
AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Solid Waste Division, LR 19:187 (February 1993), repromulgated LR 19:1316 (October 1993).
L. Financial Responsibility. Standards governing financial responsibility are contained in LAC 33:VII.727. A section documenting financial responsibility according to LAC 33:VII.727 which contains the following information, must be included for all facilities:
1. the name and address of the person who currently owns the land and the name and address of the person who will own the land if the standard permit is granted (if different from the permit holder, provide a copy of the lease or document which evidences the permit holder's authority to occupy the property); or
2. the name of the agency or other public body that is requesting the standard permit; or, if the agency is a public corporation, its published annual report; or, if otherwise, the names of the principal owners, stockholders, general partners, or officers;
3. evidence of liability coverage, including:
a. personal injury, employees, and the public (coverage, carriers, and
any exclusions or limitations);
b. property damage (coverage and carrier);
c. environmental risks; and
4. evidence of a financial assurance mechanism for closure and/or post-closure care and corrective action for known releases when needed.
M. Special Requirements. The administrative authority may require additional information for special processes or systems and for supplementary environmental analysis.
AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq. HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Solid Waste Division, LR 19:187 (February 1993), amended LR 19:1143 (September 1993).
§1105. Part III: Additional Supplementary Information
The following supplementary information is required for all solid waste processing and disposal facilities. All responses and exhibits must be identified in the following sequence to facilitate the evaluation:

A. a discussion demonstrating that the potential and real adverse environmental
effects of the facility have been avoided to the maximum extent possible;
B. a cost-benefit analysis demonstrating that the social and economic benefits of the
<u>facility outweigh the environmental-impact costs;</u>
C. a discussion and description of possible alternative projects which would offer more protection to the environment without unduly curtailing nonenvironmental benefits;
D. a discussion of possible alternative facilities which would offer more protection to
the environment without unduly curtailing nonenvironmental benefits; and
E. a discussion and description of the mitigating measures which would offer more
protection to the environment than the facility, as proposed, without unduly curtailing
nonenvironmental benefits.
AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq.
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HISTORICAL NOTE: Promulgated by the Department of Environmental Quality.
Office of Solid and Hazardous Waste, Solid Waste Division, LR 19:187 (February 1993).